



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/002,149 | 12/05/2001 | Erhard Liebig | 033275-322 | 3857 |

7590 10/15/2003
Robert S. Swecker
BURNS, DOANE, SWECKER & MATHIS, L.L.P.
P.O. Box 1404
Alexandria, VA 22313-1404

EXAMINER

CASAREGOLA, LOUIS J

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

3746

DATE MAILED: 10/15/2003

12

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/002,149

Applicant(s)

LIEBIG ET AL.

Examiner

Louis J. Casaregola

Art Unit

3746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on applicants' papers of 7/17/03 & 9/16/03.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7,10-19 is/are pending in the application.
- 4a) Of the above claim(s) 2,10-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,7 is/are rejected.
- 7) ☒ Claim(s) 4-6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 9/16/03 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Election

Applicants' election of the invention of Group I and the species of Figure 1 is acknowledged. Applicants have listed claims 1 and 3-9 as readable on the elected species but have canceled claims 8 and 9, hence, the remaining elected claims are claims 1 and 3-7. An action on the merits of these claims is set forth below and non-elected claims 2 and 10-19 are withdrawn from further consideration.

Claim Rejections - 35 USC § 102

Claims 1 and 3 stand rejected under 35 USC 102(b) as being anticipated by Boudigues.

The claimed apparatus reads on conventional turbomachines of the type disclosed by Boudigues. Attention is called to Boudigues's Figure 6, note compressors 30 and 34, turbines 27, 31 and 35, elements 52 and 28 (first and second boosters), and bypass duct 50.

Claims 1, 3, and 7 also stand rejected under 35 USC 102(b) as being anticipated by Mandrin.

With reference to Mandrin's Figure 2, note compressor 23a, turbine 23c, the compression portion of unit 20 (first booster), unit 26 (second booster), and waste heat

recovery boiler 24 located between the turbine and second booster as specified in claim 7.

Arguments

Applicants' arguments directed to the cited prior art have been considered but are not effective in overcoming the rejections.

Applicants argue that, contrary to the position taken by the rejection, the compressor section of Mandrin's unit 20 does not correspond to the booster recited in the present claims (response, page 5), and they make a similar argument with respect to unit 28 of Boudigues. This point however is disputed. Each so-called "booster" is shown and described by applicants as a mere rotary fan; see elements 14 and related portions of the specification (pages 19 and 20). While elements 20 and 28 of Mandrin and Boudigues are referred to as compressors rather than fans, such names can be used interchangeably. Note also that Boudigues's elements 52 and 28, treated as comparable to applicants' first and second boosters, are shown as power driven axial flow rotors similar to applicants' fans 14. Boudigues's element 52 is in fact even described as a fan. Regardless of the name, moreover, rotary dynamic fans and/or compressors of the type shown in the present application and the prior art are fundamentally similar in that they all operate on a gas to increase its total pressure and its

flow rate. The term "booster" as used in the present claims is considered sufficiently broad to read on all such devices.

Applicants additionally argue that Boudigues's unit 28 cannot be considered a booster since its aim is to compress gas and not to increase mass flow (response, page 6). This line of argument however is not compelling. Even if the aim of element 28 is gas compression, it will still inherently increase mass flow, and the term "booster" as used in the present case is clearly not so narrow as to preclude compression.

For the reasons discussed above, the rejection of claims 1, 3, and 7 over the prior art cited in the last Office action is considered proper.

Allowable Subject Matter


In view of applicants' latest amendment, claims 4-6 have now been determined to contain allowable subject matter. These claims are objected to as depending from a rejected parent claim, but they will be allowed if rewritten in independent form. Allowance of this case is contingent upon cancellation of all non-elected claims as well as the rejected claims.

Final Rejection

THIS ACTION IS MADE FINAL. Applicants are reminded of the extension of time policy as set forth in 37 C.F.R. 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

L. J. Casaregola
703-308-1027 (M-F; 7:30-4:00)
703-872-9302 FAX (9303 After Final)
October 14, 2003


LOUIS J. CASAREGOLA
PRIMARY EXAMINER